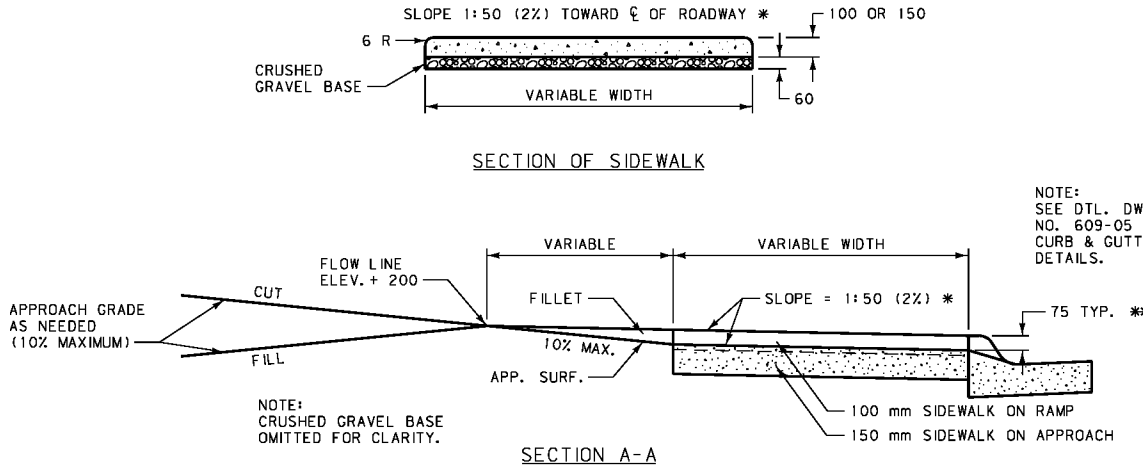
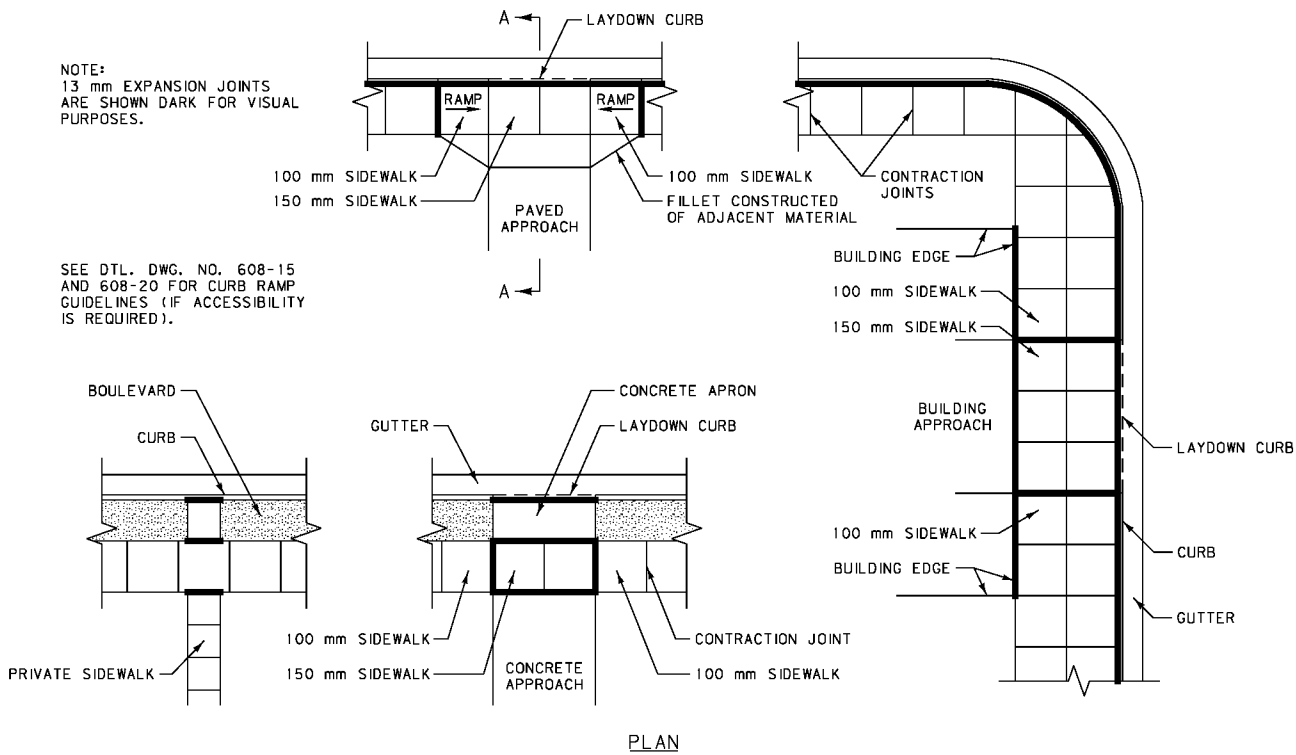


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NOTES:

INSTALL PREFORMED EXPANSION JOINT FILLER, STD. SPEC. 707.01.3, AT ALL EXPANSION JOINTS, FOR THE FULL THICKNESS OF THE SIDEWALK AND USE AT ALL JOINTS BETWEEN NEW CONCRETE SIDEWALK AND STRUCTURES IN PLACE.

ALL JOINTS MUST BE STRAIGHT AND PERPENDICULAR TO THE CENTERLINE AND THE SURFACE OF THE SIDEWALK. WHERE PRACTICABLE, ALIGN ALL JOINTS WITH LIKE JOINTS IN ADJOINING WORK. USE JOINTS TO OUTLINE ALL PANELS IN THE SIDEWALK, WHICH ARE TO BE, SO FAR AS POSSIBLE, SQUARE. THE LENGTHS OF THE PANELS ARE DETERMINED BY THE WIDTH OF THE SIDEWALK.

WHERE RIGHT-OF-WAY PERMITS, NEW SIDEWALKS LESS THAN 1525 mm IN WIDTH MUST HAVE A PASSING AREA AT A MAXIMUM SPACING OF 61 m. THE PASSING AREA IS A MINIMUM OF 1525 mm BY 1525 mm IN SIZE.

CONTRACTION JOINTS MAY NOT BE MORE THAN 3 mm WIDE AND NOT LESS THAN 25 mm IN DEPTH AND MAY BE CUT BY A GROOVE FORMING TOOL.



LOCATE EXPANSION JOINTS AT INTERVALS EQUAL TO THE NEAREST MULTIPLE OF THE CONTRACTION JOINT INTERVAL, BUT NOT GREATER THAN 18.3 METERS.

USE A LONGITUDINAL CONTRACTION JOINT IN THE CENTERLINE OF ALL SIDEWALKS WIDER THAN 1525 mm.

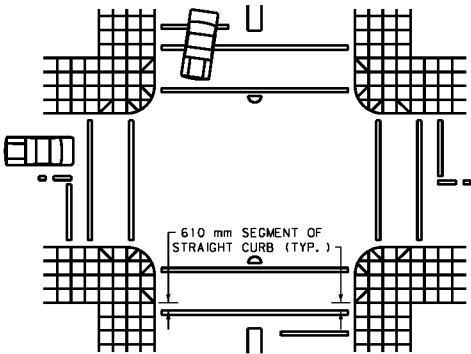
* THE MAXIMUM CROSS SLOPE OF THE SIDEWALK IS 1:50 (2%).

** THIS DEPTH IS STANDARD IN NEW CONSTRUCTION. ALTERATIONS TO EXISTING FACILITIES MAY RESULT IN A LARGER DEPTH, WHICH WILL REQUIRE A GREATER RAMP LENGTH.

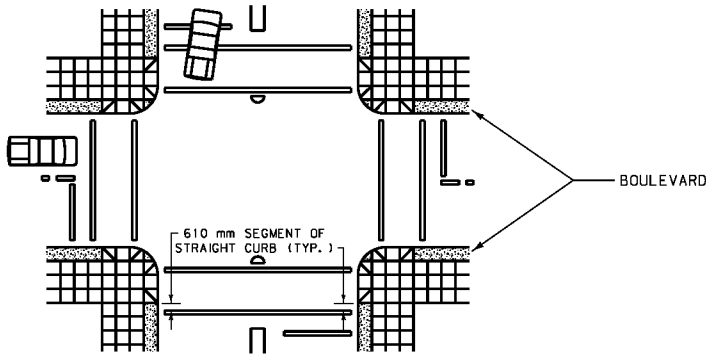
ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

DETAILED DRAWING	
REFERENCE	DWG. NO.
STANDARD SPEC.	608-05
SECTION 608	
CONCRETE SIDEWALK	
EFFECTIVE: AUGUST 1999	
 MONTANA DEPARTMENT OF TRANSPORTATION	 MONTANA CADD

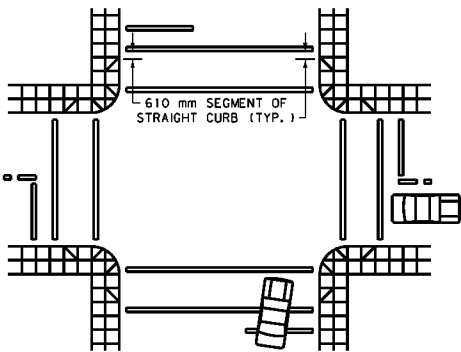
CURB RAMP TYPES



TYPICAL URBAN SITE - WIDE SIDEWALKS WITH MEDIAN ISLANDS DEPRESSED.

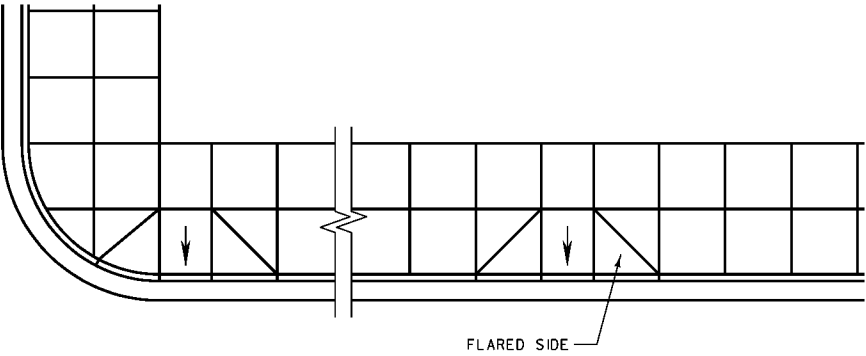


TYPICAL URBAN SITE - WIDE SIDEWALKS WITH MEDIAN ISLANDS DEPRESSED (INCLUDES BOULEVARD AREA)

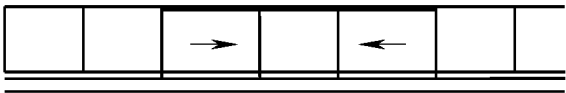


TYPICAL RESIDENTIAL SITE - NARROWER SIDEWALKS (MAY INCLUDE BOULEVARD - NOT SHOWN)

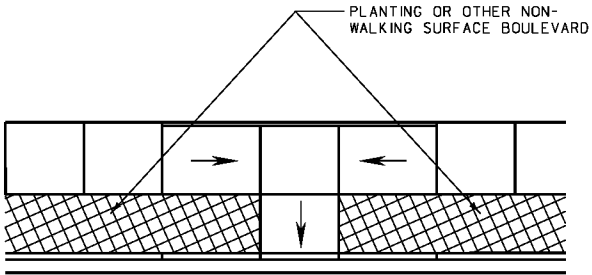
CURB RAMP TYPES



(A)
PERPENDICULAR PUBLIC SIDEWALK CURB RAMP
(SEE DETAILED DRAWING NUMBER 608-25 FOR ADDITIONAL DETAILS)



(B)
PARALLEL PUBLIC SIDEWALK CURB RAMP
(SEE DETAILED DRAWING NUMBER 608-30 FOR ADDITIONAL DETAILS)



(C)
COMBINED (PARALLEL/PERPENDICULAR) PUBLIC SIDEWALK CURB RAMP (SEE DETAILED DRAWING NUMBERS 608-25 AND 608-30 FOR ADDITIONAL DETAILS)

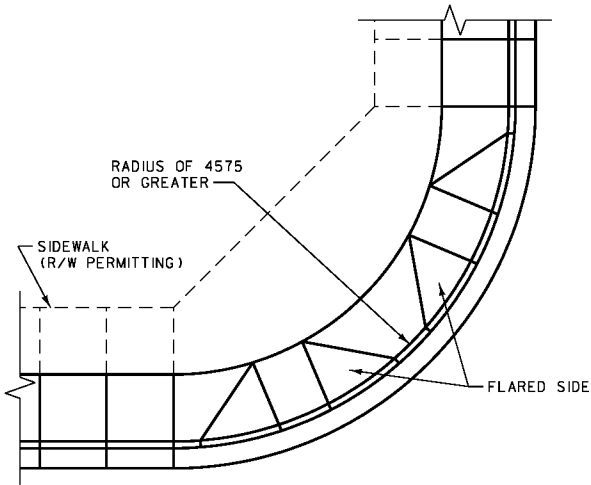
GENERAL NOTES:

1. IN NEW CONSTRUCTION, USE PUBLIC SIDEWALK CURB RAMP IN THE FOLLOWING ORDER OF PREFERENCE:
 - A. PERPENDICULAR PUBLIC SIDEWALK CURB RAMP
 - B. PARALLEL PUBLIC SIDEWALK CURB RAMP
 - C. COMBINED (PARALLEL/PERPENDICULAR) PUBLIC SIDEWALK CURB RAMP
 - D. DIAGONAL PUBLIC SIDEWALK CURB RAMP.
2. WHEN ALTERING EXISTING FACILITIES, MEET NEW CONSTRUCTION REQUIREMENTS FOR PUBLIC SIDEWALK CURB RAMP TO THE MAXIMUM EXTENT FEASIBLE.
3. IF POSSIBLE, DO NOT PLACE DRAINAGE STRUCTURES IN CONFLICT WITH PUBLIC SIDEWALK CURB RAMP. LOCATION OF CURB RAMP TAKES PRECEDENCE OVER LOCATION OF DRAINAGE STRUCTURES EXCEPT WHERE EXISTING DRAINAGE STRUCTURES ARE BEING UTILIZED.
4. USE THE FLATTEST SLOPES POSSIBLE FOR ALL CURB RAMP. MAXIMUM SLOPES ARE SHOWN FOR GUIDANCE AT DIFFICULT SITES.
5. FINAL FIELD LOCATION OF THE CURB RAMP WILL BE DETERMINED BY THE ENGINEER.
6. FOR ADDITIONAL INFORMATION CONSULT:

APPENDIX IV
AMERICANS WITH DISABILITIES ACT (ADA)
ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES
AUGUST 1994 EDITION



CONSTRUCTION REQUIREMENTS:

1. OBTAIN A SURFACE TEXTURE ON THE RAMP BY COARSE BROOMING, TRANSVERSE TO THE RAMP SLOPE.
2. TAKE CARE DURING CONSTRUCTION TO ASSURE UNIFORM RAMP GRADES, FREE OF SAGS AND SHARP GRADE CHANGES.



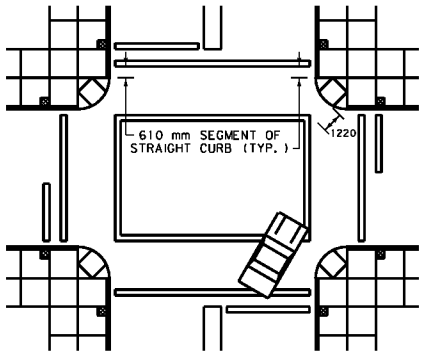
(D)
DIAGONAL PUBLIC SIDEWALK CURB RAMP
(SEE DETAILED DRAWING NUMBER 608-35 FOR ADDITIONAL DETAILS)

ALL DIMENSIONS ARE MILLIMETERS
(mm) UNLESS OTHERWISE NOTED.

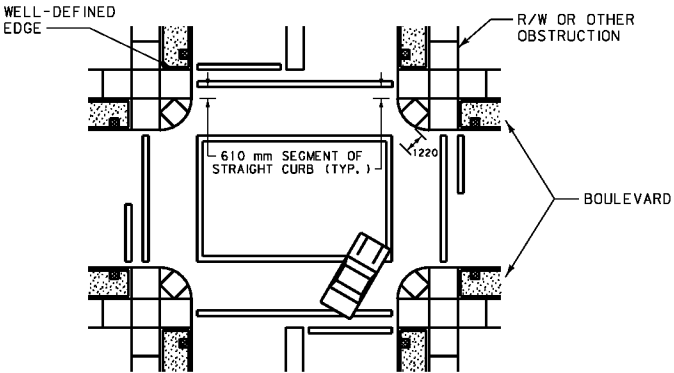
DETAILED DRAWING	
REFERENCE	DWG. NO.
STANDARD SPEC.	608-15
SECTION 608	
NEW CONSTRUCTION PUBLIC SIDEWALK CURB RAMP	
EFFECTIVE: AUGUST 1999	
 MONTANA DEPARTMENT OF TRANSPORTATION	 MONTANA CADD

CURB RAMPS AT MARKED INTERSECTIONS
ILLUSTRATED WITH OPTION E (SEE NOTE 1)

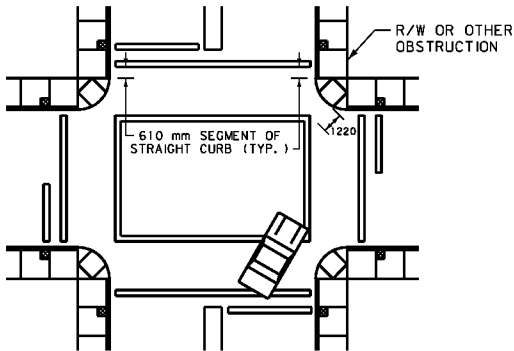
FOLLOW NEW CONSTRUCTION GUIDELINES ON DETAILED DRAWING
NUMBER 608-15 UNLESS EXISTING OBSTRUCTIONS CAUSE USE
OF THE DIAGONAL PUBLIC SIDEWALK CURB RAMP.



TYPICAL URBAN SITE - EXISTING OBSTRUCTIONS
PREVENT USE OF OTHER CURB RAMP TYPES



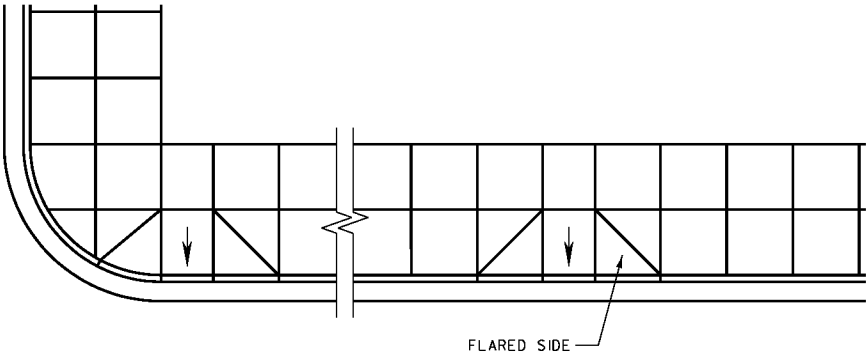
TYPICAL SITE - EXISTING RIGHT-OF-WAY OR OTHER
OBSTRUCTIONS PREVENT USE OF OTHER CURB RAMP
TYPES (SHOWN WITH BOULEVARD)



TYPICAL SITE - EXISTING RIGHT-OF-WAY OR OTHER
OBSTRUCTIONS PREVENT USE OF OTHER CURB RAMP
TYPES

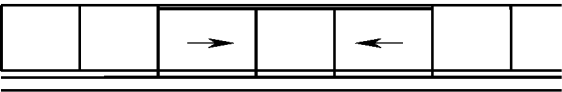
■ - OBSTRUCTION

CURB RAMP TYPES



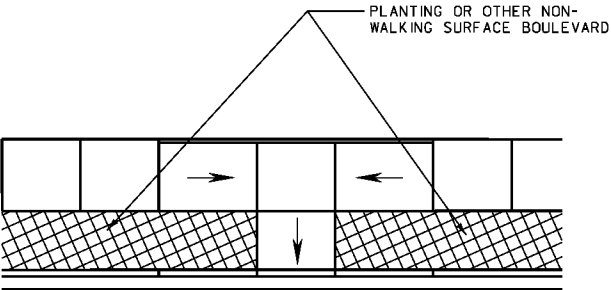
(A)

PERPENDICULAR PUBLIC SIDEWALK CURB RAMP
(SEE DETAILED DRAWING NUMBER 608-25 FOR
ADDITIONAL DETAILS)



(B)

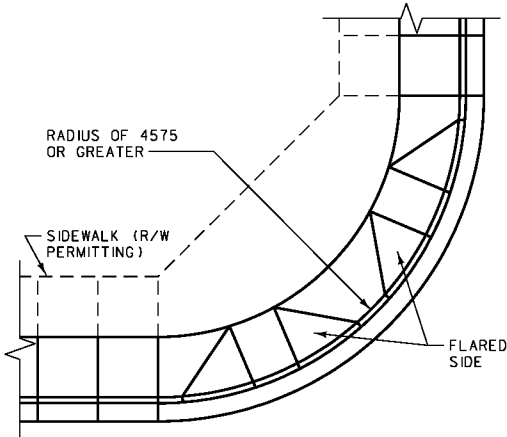
PARALLEL PUBLIC SIDEWALK CURB RAMP
(SEE DETAILED DRAWING NUMBER 608-30
FOR ADDITIONAL DETAILS)



(C)

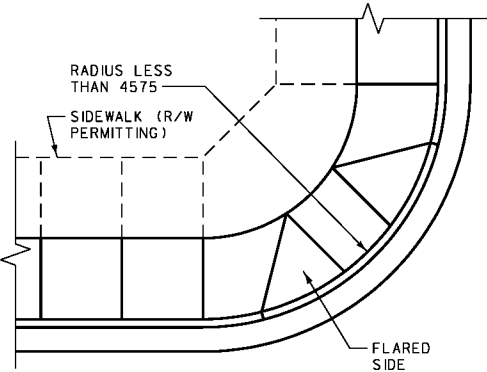
COMBINED (PARALLEL/PERPENDICULAR) PUBLIC
SIDEWALK CURB RAMP (SEE DETAILED DRAWING
NUMBERS 608-25 AND 608-30 FOR ADDITIONAL
DETAILS)

CURB RAMP TYPES



(D)

DIAGONAL PUBLIC SIDEWALK CURB RAMP
(SEE DETAILED DRAWING NUMBER 608-35
FOR ADDITIONAL DETAILS)



(E)

SINGLE DIAGONAL PUBLIC SIDEWALK CURB
RAMP (SEE DETAILED DRAWING NUMBER
608-35 FOR ADDITIONAL DETAILS)

GENERAL NOTES:

1. WHEN ALTERING EXISTING FACILITIES, USE PUBLIC SIDEWALK CURB RAMPS IN THE FOLLOWING ORDER OF PREFERENCE:
A. PERPENDICULAR PUBLIC SIDEWALK CURB RAMP
B. PARALLEL PUBLIC SIDEWALK CURB RAMP
C. COMBINED (PARALLEL/PERPENDICULAR) PUBLIC SIDEWALK CURB RAMP
D. DIAGONAL PUBLIC SIDEWALK CURB RAMP
E. SINGLE DIAGONAL PUBLIC SIDEWALK CURB RAMP

NOTE: USE DIAGONAL PUBLIC SIDEWALK CURB RAMPS AS THE LAST OPTION AND CONSTRUCT TO COMPLY WITH ALL ADA SLOPE AND CONSTRUCTION CRITERIA TO THE GREATEST EXTENT POSSIBLE.

2. PLACE CURB RAMPS TO AVOID EXISTING DRAINAGE STRUCTURES AND OTHER OBSTRUCTIONS TO THE GREATEST EXTENT POSSIBLE.
3. USE THE FLATTEST SLOPES POSSIBLE FOR ALL CURB RAMPS. MAXIMUM SLOPES ARE SHOWN FOR GUIDANCE AT DIFFICULT SITES AND SHOULD BE AVOIDED IF POSSIBLE.
4. FINAL FIELD LOCATION OF THE CURB RAMPS WILL BE DETERMINED BY THE ENGINEER.
5. FOR ADDITIONAL INFORMATION CONSULT:

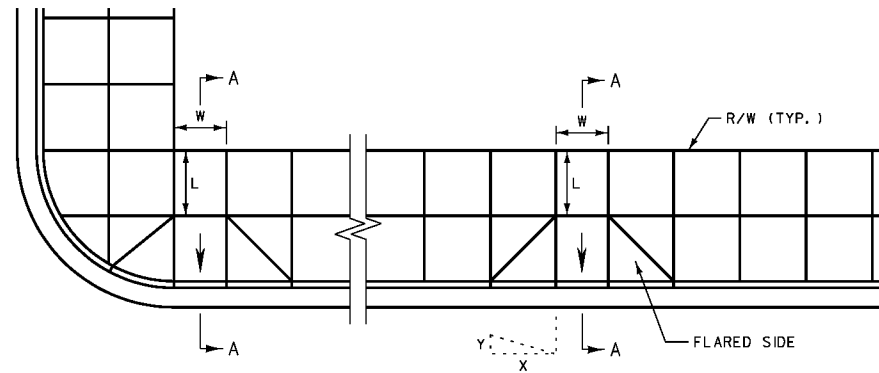
APPENDIX IV
AMERICANS WITH DISABILITIES ACT (ADA)
ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES
AUGUST, 1994 EDITION

CONSTRUCTION REQUIREMENTS:

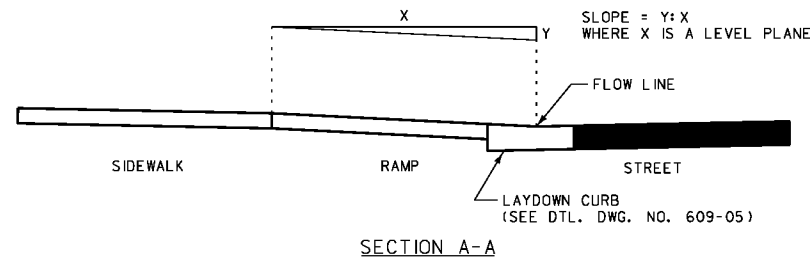
1. OBTAIN A SURFACE TEXTURE ON THE RAMP BY COARSE BROOMING, TRANSVERSE TO THE RAMP SLOPE.
2. TAKE CARE DURING CONSTRUCTION TO ASSURE UNIFORM RAMP GRADES, FREE OF SAGS AND SHARP GRADE CHANGES.

ALL DIMENSIONS ARE MILLIMETERS
(mm) UNLESS OTHERWISE NOTED.

DETAILED DRAWING	
REFERENCE	DWG. NO.
STANDARD SPEC.	608-20
SECTION 608	
ALTERATIONS TO EXISTING FACILITIES - PUBLIC SIDEWALK CURB RAMPS	
EFFECTIVE: AUGUST 1999	
MONTANA DEPARTMENT OF TRANSPORTATION	
MONTANA CADD	



PERPENDICULAR PUBLIC SIDEWALK CURB RAMP



NEW CONSTRUCTION REQUIREMENTS:



1. THE DESIRABLE WIDTH OF THE CURB RAMP (DIMENSION "W" ABOVE) IS 1220 mm OR WIDER. THE MINIMUM WIDTH (W) IS 915 mm.
2. THE DESIRABLE LENGTH OF THE LANDING AT THE TOP OF THE CURB RAMP (DIMENSION "L" ABOVE) IS 1525 mm OR THE LENGTH OF THE RAMP. THE MINIMUM LENGTH "L" IS 1220 mm.
3. THE DESIRABLE SLOPE FOR THE CURB RAMP IS 1:20 OR FLATTER. THE MAXIMUM CURB RAMP SLOPE IS 1:12.
4. THE DESIRABLE SLOPE FOR THE FLARED SIDE OF THE CURB RAMP IS 1:12 OR FLATTER. THE MAXIMUM FLARED SIDE SLOPE IS 1:10.
5. THE MAXIMUM CROSS SLOPE OF THE SIDEWALK IS 1:50 (2%).
6. THE SURFACE OF THE PERPENDICULAR PUBLIC SIDEWALK CURB RAMP IS TO CONTRAST VISUALLY WITH THE ADJOINING PUBLIC SIDEWALK SURFACES. THIS CAN BE OBTAINED BY USE OF COLORED CONCRETE, PATTERNING THE CONCRETE SURFACE OR OTHER APPROVED METHODS.

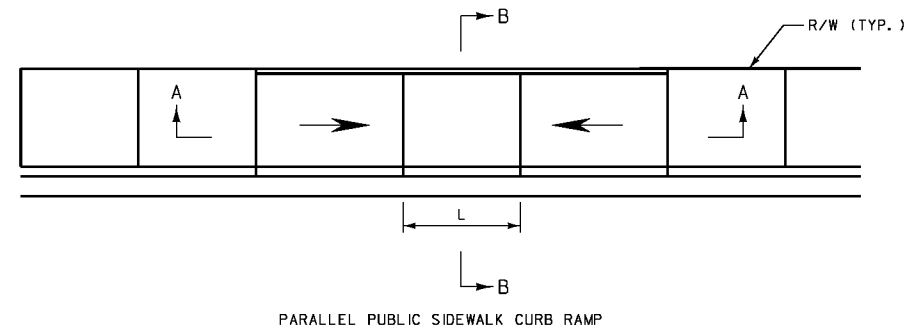
REQUIREMENTS FOR ALTERATIONS TO EXISTING FACILITIES:

NOTE: WHEREVER POSSIBLE, ALTER EXISTING FACILITIES TO COMPLY WITH THE NEW CONSTRUCTION REQUIREMENTS.

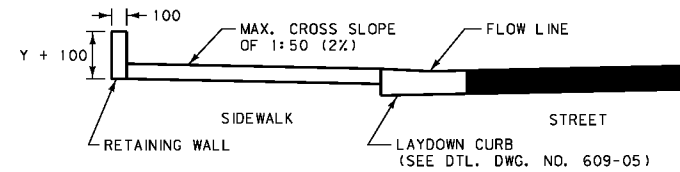
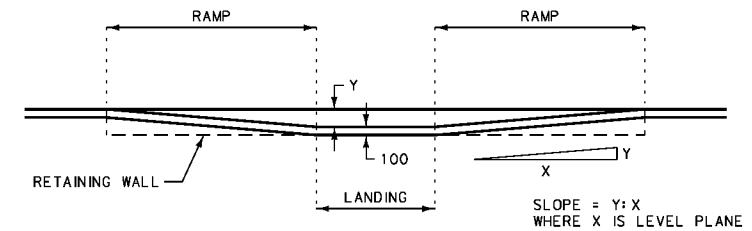
1. THE MINIMUM WIDTH OF THE CURB RAMP (DIMENSION "W" ABOVE) IS 915 mm.
NOTE: WHERE THE PUBLIC PEDESTRIAN RIGHT-OF-WAY WIDTH IS LESS THAN 915 mm, PROVIDE A PARALLEL PUBLIC SIDEWALK CURB RAMP.
2. WHERE PUBLIC PEDESTRIAN RIGHT-OF-WAY WIDTH IS INSUFFICIENT TO ACCOMMODATE A TOP LANDING OF 1220 mm, PROVIDE A TOP LANDING OF 915 mm.
3. THE MAXIMUM CURB RAMP SLOPE IS 1:10, PROVIDED THE RISE (DIMENSION "Y" ABOVE) IS 150 mm OR LESS. A 1:12 OR FLATTER SLOPE IS DESIRABLE.
4. THE MAXIMUM FLARED SIDE SLOPE IS 1:10.
5. THE MAXIMUM CROSS SLOPE OF THE SIDEWALK IS 1:50 (2%).
6. THE SURFACE OF THE PERPENDICULAR PUBLIC SIDEWALK CURB RAMP IS TO CONTRAST VISUALLY WITH THE ADJOINING PUBLIC SIDEWALK SURFACES. THIS CAN BE OBTAINED BY USE OF COLORED CONCRETE, PATTERNING THE CONCRETE SURFACE OR OTHER APPROVED METHODS.
7. WHERE EXISTING SITE DEVELOPMENT CONDITIONS PROHIBIT THE STRICT AND FULL COMPLIANCE OF ALL ADA CRITERIA, PROVIDE ACCESSIBILITY TO THE MAXIMUM EXTENT FEASIBLE.

NOTE:
COMBINED (PARALLEL/PERPENDICULAR) PUBLIC SIDEWALK CURB RAMPs ARE TO MEET THE CRITERIA FOR BOTH THE PARALLEL AND PERPENDICULAR PUBLIC SIDEWALK CURB RAMPs. (SEE DETAILED DRAWING NUMBER 608-30 AND THIS DRAWING.)

DETAILED DRAWING	
REFERENCE	DWG. NO.
STANDARD SPEC.	608-25
SECTION 608	
PERPENDICULAR PUBLIC SIDEWALK CURB RAMPs	
EFFECTIVE: AUGUST 1999	
 MONTANA DEPARTMENT OF TRANSPORTATION 	



PARALLEL PUBLIC SIDEWALK CURB RAMP



NEW CONSTRUCTION REQUIREMENTS:

1. THE MINIMUM LENGTH OF THE LANDING (DIMENSION "L" ABOVE) IS 1525 mm.
2. THE DESIRABLE SLOPE FOR THE CURB RAMPs IS 1:20 OR FLATTER. THE MAXIMUM CURB RAMP SLOPE IS 1:12.
3. THE MAXIMUM CROSS SLOPE OF THE SIDEWALK OR LANDING IS 1:50 (2%).
4. THE SURFACE OF THE LANDING IS TO CONTRAST VISUALLY WITH ADJOINING PUBLIC SIDEWALK SURFACES. THIS CAN BE OBTAINED BY USE OF COLORED CONCRETE, PATTERNING THE CONCRETE SURFACE OR OTHER APPROVED METHODS.

REQUIREMENTS FOR ALTERATIONS TO EXISTING FACILITIES:

NOTE: WHEREVER POSSIBLE, ALTER EXISTING FACILITIES TO COMPLY WITH THE NEW CONSTRUCTION REQUIREMENTS.



1. THE DESIRABLE LENGTH OF THE LANDING (DIMENSION "L" ABOVE) IS 1525 mm. THE MINIMUM LANDING LENGTH IS 1220 mm.
2. THE MAXIMUM CURB RAMP SLOPE IS 1:10, PROVIDED THE RISE (DIMENSION "Y" ABOVE) IS 150 mm OR LESS. A 1:12 OR FLATTER SLOPE IS DESIRABLE.
3. THE MAXIMUM CROSS SLOPE OF THE SIDEWALK AND LANDING IS 1:50 (2%) SLOPE.
4. THE SURFACE OF THE LANDING IS TO CONTRAST VISUALLY WITH THE ADJOINING PUBLIC SIDEWALK SURFACES. THIS CAN BE OBTAINED BY USE OF COLORED CONCRETE, PATTERNING THE CONCRETE SURFACE OR OTHER APPROVED METHODS.
5. WHERE EXISTING SITE DEVELOPMENT CONDITIONS PROHIBIT THE STRICT AND FULL COMPLIANCE OF ALL ADA CRITERIA, PROVIDE ACCESSIBILITY TO THE MAXIMUM EXTENT FEASIBLE.

NOTES:

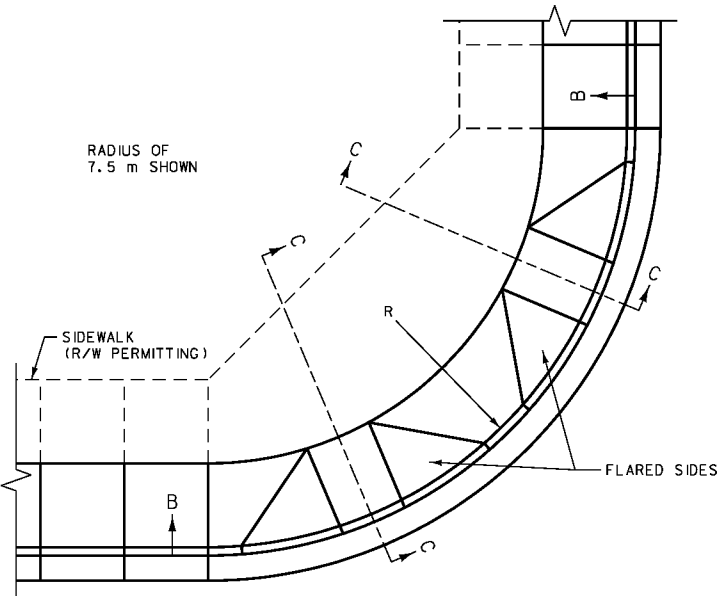
THE COST OF THE RETAINING WALL IS INCLUDED IN THE UNIT PRICE BID FOR CONCRETE SIDEWALK.

COMBINED (PARALLEL/PERPENDICULAR) PUBLIC SIDEWALK CURB RAMPs ARE TO MEET THE CRITERIA FOR BOTH THE PARALLEL AND PERPENDICULAR PUBLIC SIDEWALK CURB RAMPs. (SEE DETAILED DRAWING NO. 608-25 AND THIS DRAWING.)

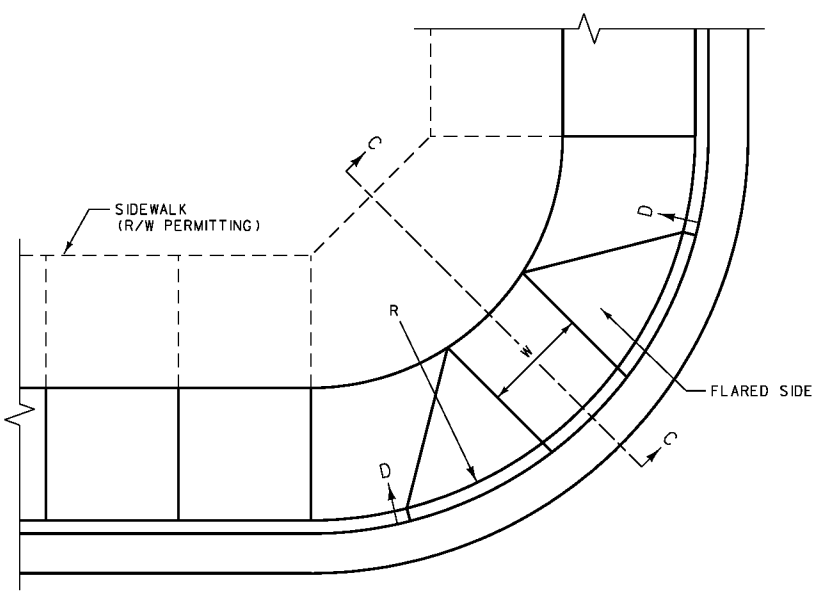
ALL DIMENSIONS ARE MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

DETAILED DRAWING	
REFERENCE	DWG. NO.
STANDARD SPEC.	608-30
SECTION 608	
PARALLEL PUBLIC SIDEWALK CURB RAMPs	
EFFECTIVE: AUGUST 1999	
 MONTANA DEPARTMENT OF TRANSPORTATION 	

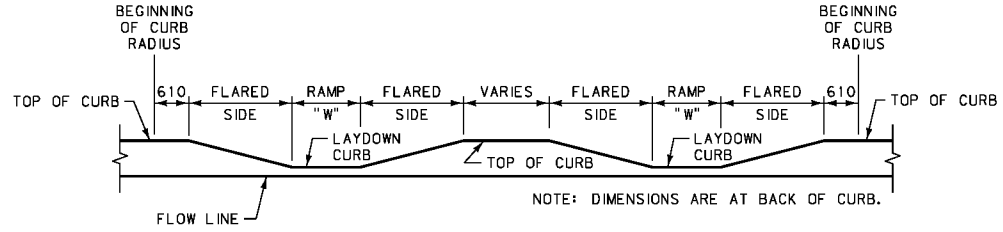
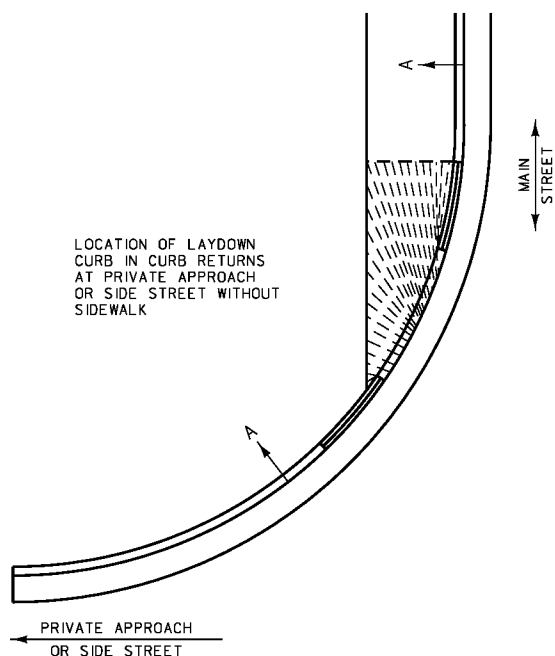
DIAGONAL PUBLIC SIDEWALK CURB RAMP
(FOR RADI 4575 OR GREATER)



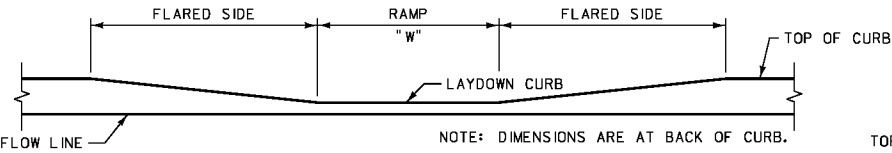
SINGLE DIAGONAL PUBLIC SIDEWALK CURB RAMP
(FOR RADI LESS THAN 4575)



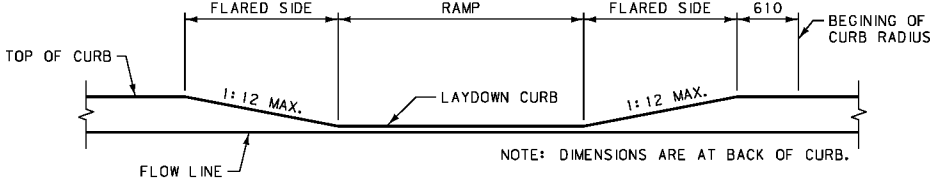
PRIVATE APPROACH SIDEWALK CURB RAMP



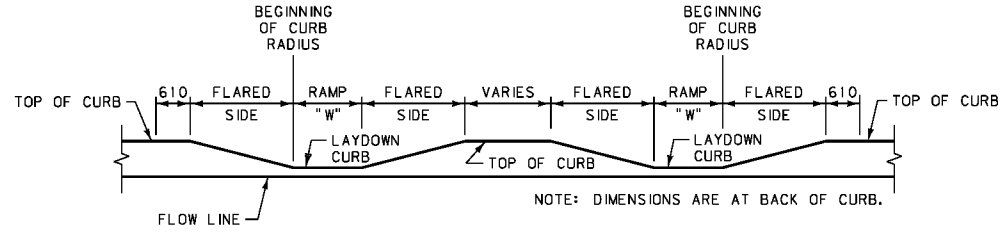
SECTION B-B
(R EQUAL TO OR GREATER THAN 7625)



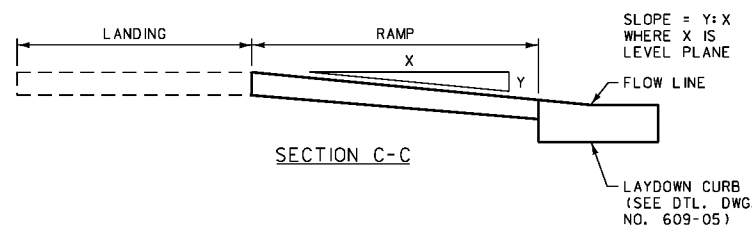
SECTION D-D
(R LESS THAN 4575)



SECTION A-A



SECTION B-B
(R EQUAL TO OR GREATER THAN 4575,
BUT LESS THAN 7625)



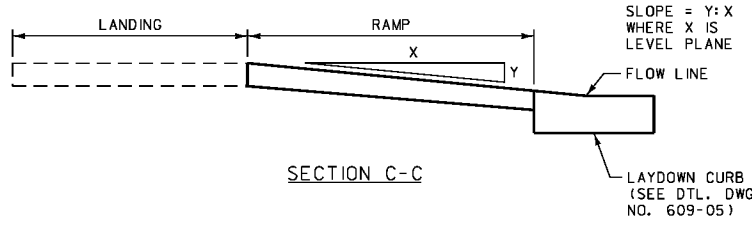
SECTION C-C

NEW CONSTRUCTION:

NOTE: SINGLE DIAGONAL PUBLIC SIDEWALK CURB RAMPS SERVING TWO STREET CROSSING DIRECTIONS ARE NOT PERMITTED IN NEW CONSTRUCTION.


REQUIREMENTS FOR ALTERATIONS TO EXISTING FACILITIES:

1. THE DESIRABLE WIDTH OF THE CURB RAMP (DIMENSION "W" ABOVE) IS 1220 mm. THE MINIMUM WIDTH IS 915 mm.
2. THE DESIRABLE CURB RAMP SLOPE IS 1:12 OR FLATTER. THE MAXIMUM CURB RAMP SLOPE IS 1:10, PROVIDED THE RISE (DIMENSION "Y" ABOVE) IS 150 mm OR LESS.
3. THE DESIRABLE LANDING LENGTH IS 1220 mm. THE MINIMUM LANDING LENGTH IS 915 mm.
NOTE: IF EXISTING RIGHT-OF-WAY OR OTHER OBSTRUCTIONS REDUCE THE LANDING LENGTH TO LESS THAN 1220 mm, THE MAXIMUM FLARED SIDE SLOPE IS 1:12.
4. THE MAXIMUM FLARED SIDE SLOPE IS 1:10.
5. THE MAXIMUM CROSS SLOPE OF THE SIDEWALK IS 1:50 (2%).
6. THE SURFACE OF THE PUBLIC SIDEWALK RAMP IS TO CONTRAST VISUALLY WITH THE ADJOINING PUBLIC SIDEWALK SURFACES. THIS CAN BE OBTAINED BY USE OF COLORED CONCRETE, PATTERNING THE CONCRETE SURFACE OR OTHER APPROVED METHODS.
7. WHERE EXISTING SITE DEVELOPMENT CONDITIONS PROHIBIT THE STRICT AND FULL COMPLIANCE OF ALL ADA CRITERIA, PROVIDE ACCESSIBILITY TO THE MAXIMUM EXTENT FEASIBLE.



SECTION C-C

ALL DIMENSIONS ARE MILLIMETERS
(mm) UNLESS OTHERWISE NOTED.

DETAILED DRAWING	
REFERENCE	DWG. NO.
STANDARD SPEC.	608-35
SECTION 608	
DIAGONAL PUBLIC SIDEWALK CURB RAMPS	
EFFECTIVE: AUGUST 1999	
	MONTANA CADD